Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

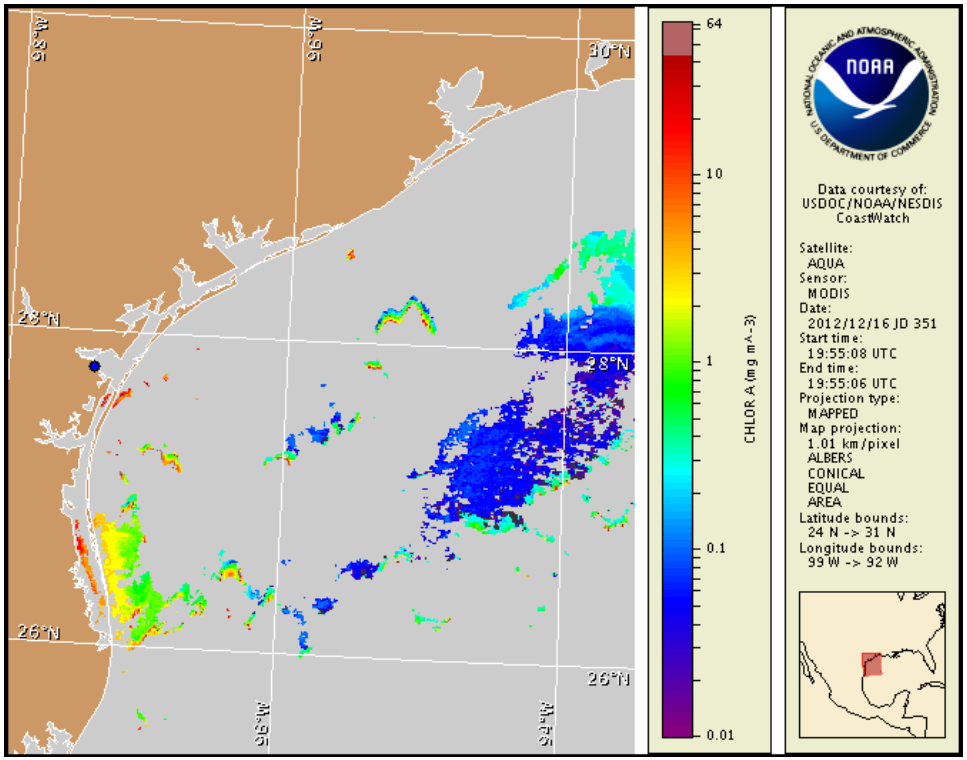
Monday, 17 December 2012

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 10, 2012



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from December 7 to 13 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

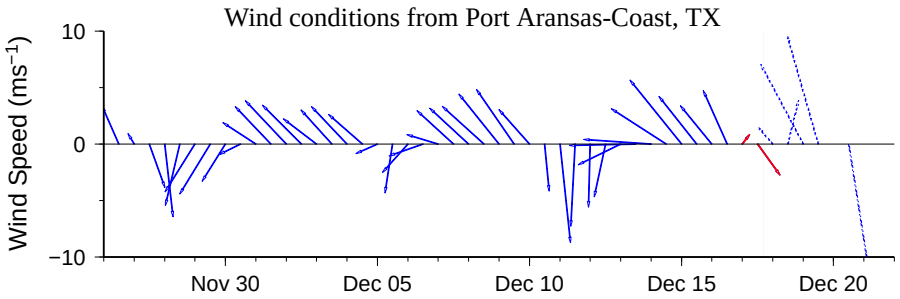
There is currently no indication of a harmful algal bloom of *Karenia brevis* at the coast in Texas; however, very low concentrations have been identified in Corpus Christi Bay. No respiratory impacts are expected in Corpus Christi Bay or alongshore Texas today through Monday, December 24. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Analysis

There is currently no indication of a harmful algal bloom of *Karenia brevis* at the coast in Texas; however, very low concentrations have been identified in Corpus Christi Bay, along with low concentrations of the algae *K. mikimotoi*. Samples collected from Corpus Christi Bay on 12/12 indicated *K. brevis* was not present at nine locations (not shown on map) while one sample from Cole Park measured 'very low b' concentrations of *K. brevis* (TPWD, DSHS; 12/12). The Imaging FlowCytobot, located at the University of Texas Marine Science Institute Pier in Port Aransas, has indicated the presence of background concentrations of *K. brevis* (TAMU; 12/11). Discolored water reported in Corpus Christi Bay over 10 days ago was associated with concentrations of the algae *K. mikimotoi* (TPWD, DSHS; 12/11). There have been no reports of *K. brevis* elsewhere along the Texas coast.

MODIS Aqua imagery from 12/16 (shown left) is partially obscured by clouds from Sabine Pass the Rio Grande, limiting analysis in this region. Elevated chlorophyll (2-4 μg/L) is visible in patches along- and offshore the Padre Island region. Elevated chlorophyll is not indicative of the presence of *K. brevis* and is most likely due to the resuspension of benthic chlorophyll and sediments along the coast. Patches of high chlorophyll (>10 μg/L) are also present alongshore Mustang Island, but these are most likely artifacts of clouds in the imagery. Forecast models based on predicted near-surface currents indicate a negligible transport (< 10km) north from the Port Aransas region from December 16-20.

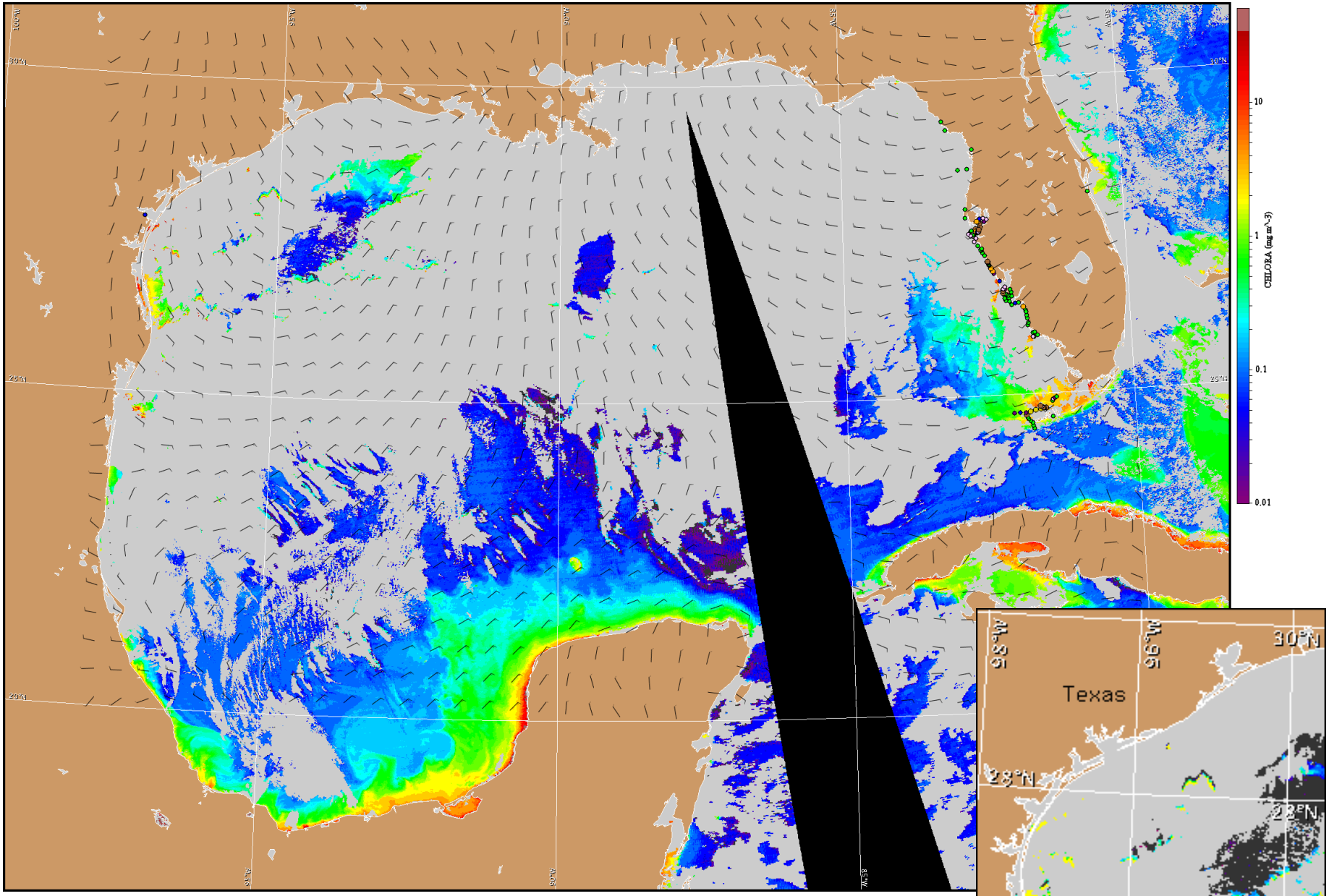
Davis, Kavanaugh



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Port Aransas: Northwest winds (10-15 kn, 5-8 m/s) today. West winds (5 kn, 3 m/s) tonight becoming south winds (5-10 kn, 3-5 m/s) Tuesday. Southeast winds (10-20 kn, 5-10 m/s) Tuesday afternoon. South winds (15-20 kn, 8-10 m/s) Wednesday. Northwest to north winds (20-30 kn, 10-15 m/s) Thursday. Northeast to east winds (10-15 kn) Friday. Southeast to south winds (5-15 kn, 3-8 m/s) Friday night.



Satellite chlorophyll image and forecast winds for December 18, 2012 12Z with cell concentration sampling data from December 7 to 13 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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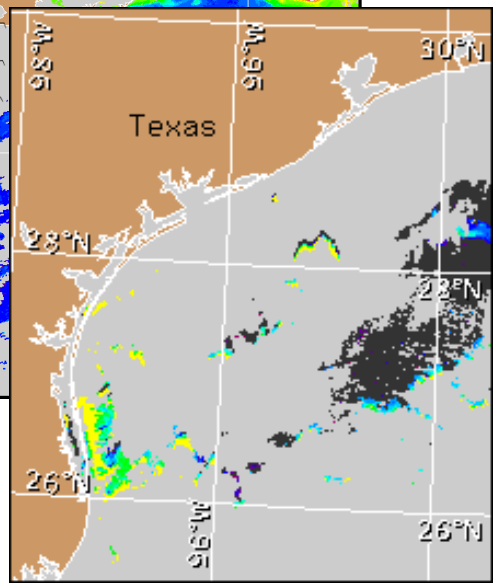

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).